

REMARKS

Claims 47-54 are pending in this application. In this Amendment and Response to Non-Final Office Action (“Response”), Applicants amend Claim 47 and add new Claims 55-58. The claim amendments do not introduce any new matter.

Support for the Amendments

Support for the claim amendments and the new claims appears throughout the application, as filed. For example, in reference to the present application published as U.S. Patent Application Publication 20020147499 on October 10, 2002, the specification supports some of the amendments to Claim 47 in paragraph 0062. New Claims 55-58 are based on previously presented Claim 47 and further supported in the specification, for example, in paragraph 0089.

Interview

Applicants thank the Examiner for extending to them a courtesy of an in-person interview on November 5, 2007. During the interview, the Examiner, an inventor, a representative for the assignee, and an agent for the assignee discussed potential claim amendments.

Claim Rejections under 35 U.S.C. § 112

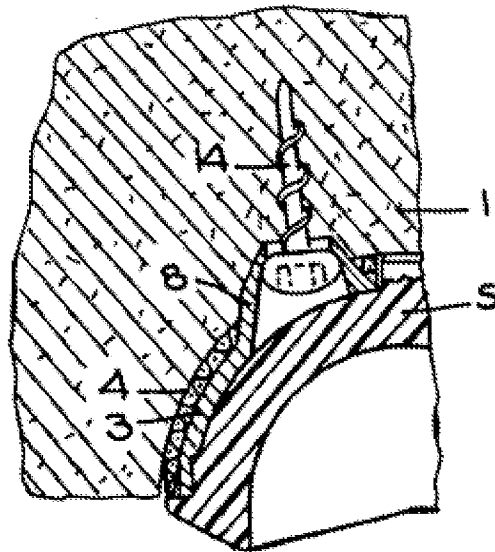
The Examiner rejects Claims 47-54 under 35 U.S.C. § 112, second paragraph, as indefinite. In particular, the Examiner asserts that, in Claim 47, the limitation “adapted to receive at least an aperture cover, a screw, and a peg” renders the claim vague and indefinite because the claim language “seems to imply that the opening receives the aperture cover, a screw and a peg simultaneously.” Applicants amend Claim 47 to recite “adapted to interchangeably receive one of the insertion members selected from the group consisting of an aperture cover, a screw, a spike and a peg.” Applicants assert that the amendment overcomes the rejection and request its withdrawal.

Claim Rejections under 35 U.S.C. § 102

Marchetti

The Examiner rejects Claims 47-50 and 52 under 35 U.S.C. 102(b) as anticipated by U.S. Patent No. 5,156,625 to Marchetti et al. ("Marchetti"). Applicants assert that Marchetti fails to anticipate Claim 47 and its dependent Claims 48-50 and 52. Anticipation requires the cited reference to teach each and every element of the claim. *See* MPEP 2131.01. Marchetti does not teach at least one element recited in Claim 47, as Applicants further discuss below. Accordingly, Marchetti fails to anticipate Claim 47 and any of its dependent claims for at least this reason.

On page 3 of the Office Action, the Examiner asserts, among other things, that Marchetti discloses a screw or an insertion member with a rounded non-frustoconical contact surface that contacts the frustoconical taper section of the opening and does not contact the lower portion of the opening. The Examiner references Figure 4, column 2, lines 39-68 and column 3, lines 1-44 in Marchetti. Figure 4 in Marchetti schematically illustrates an acetabular prosthesis secured by a retaining screw (14). For easy reference, Applicants reproduce below Figure 4 from Marchetti.



Marchetti, Figure 4

In reference to Figure 4 of Marchetti, the Examiner, in particular, asserts that the rounded surface of the head of the screw (14) corresponds to the recited in the rejected claims rounded non-frustoconical contact surface that contacts the frustoconical taper section of the opening and does not contact the lower portion of the opening. The Examiner also asserts that the rounded surface of the head of the screw shown in Figure 14 of Marchetti is a slice or portion of a sphere, as recited in Claim 47.

Applicants bring to the Examiner's attention that Marchetti fails to teach or suggest at least one structural characteristic of the claimed embodiments of Applicants' invention. A head of an insertion member recited in the pending claims contains a contact surface that falls on a slice of a sphere. As a result of such a configuration of the contact surface, when the insertion member is inserted into an opening of a prosthesis, the insertion member locks in one of a plurality of desired angles relative to the opening.

Marchetti fails to teach or suggest at least one structural limitation recited in the pending claims, "a non-frustoconical contact surface that comprises a slice of a sphere." Figure 4 of Marchetti cited by the Examiner as the basis for the rejection is a schematic illustration, and it fails to show clearly and unambiguously a contact surface of the head of the retaining screw (14) with respect to the shell depicted in Figure 4. Marchetti also fails to describe the configuration of the head of the retaining screw elsewhere in the publication. Therefore, Marchetti fails to provide a basis for the rejection. Thus, Marchetti fails to anticipate the pending claims and the rejection should be withdrawn for at least this reason.

Marchetti fails to teach or suggest at least one more structural limitation recited in Claim 47 and also in new Claim 56, "the contact between the non-frustoconical contact surface of the head and the frustoconical taper section ... creates a self locking relationship between the insertion member and the opening to lock the insertion member in one of a plurality of desired angles relative to the opening so that the insertion member and the prosthesis form a rigid physical construct at each of the angles." Marchetti also fails to teach or suggest at least one structural limitation recited in new Claim 57, that "the contact between a portion of the rim and the frustoconical contact taper section locks the insertion member in one of a plurality of desired

angles relative to the opening so that the insertion member and the prosthesis form a rigid physical construct at each of the angles.” Figure 4 in Marchetti, which only schematically illustrates the retaining screw securing an acetabular prosthesis in place and provides no detail on operation of the screw, and the rest of Marchetti fails to teach or suggest any structural limitation making it possible to lock the retaining screw (14) in a plurality of desired angles relative to the opening. Accordingly, Marchetti fails to anticipate independent Claims 47, 56, 57 and any of their dependent claims for at least this reason.

With regard to new Claims 55, 56 and 58, in addition to the limitations discussed above, Marchetti, either in Figure 4 or elsewhere to the publication, fails to teach or suggest one more limitation recited in the claims. Namely, Marchetti fails to teach or suggest, in reference to Claim 55, an insertion member having a head which includes a non-frustoconical contact surface that comprises a slice of a sphere, wherein the slice of the sphere comprises a center point of the sphere. In reference to Claims 56 and 58, Marchetti fails to teach or suggest an outer rim falling on a slice of a sphere containing a center point of the sphere. Accordingly, Marchetti fails to anticipate Claims 55, 56 and 58 for at least this reason.

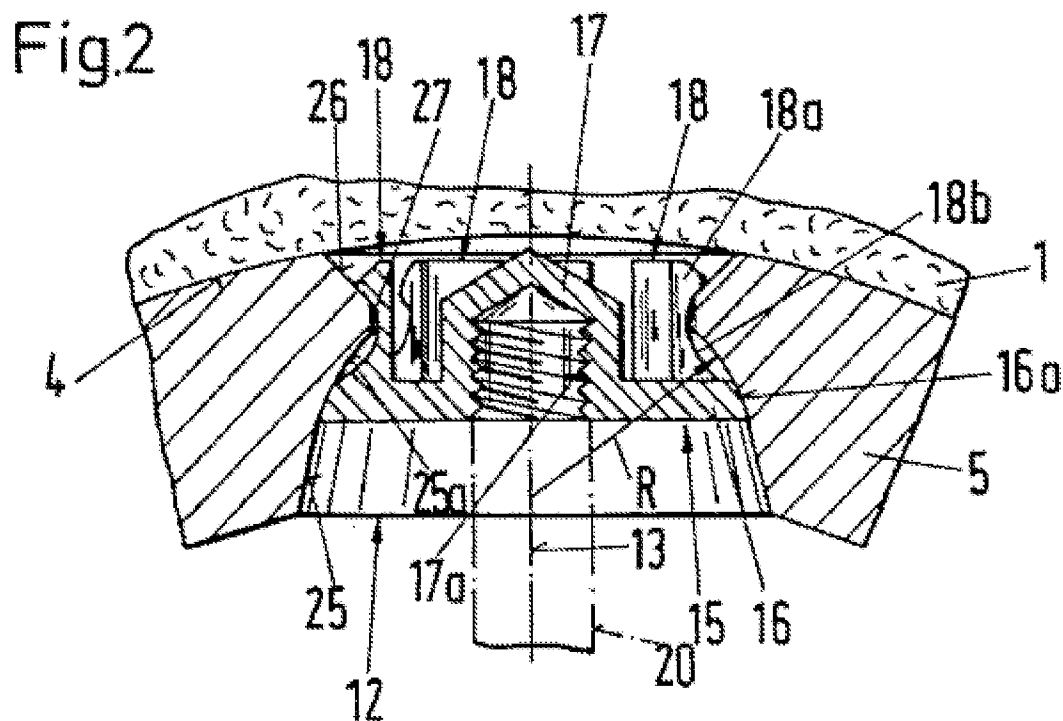
In view of the foregoing, Applicants assert that Marchetti fails to anticipate currently pending claims and request withdrawal of the rejection of Claims 47-50 and 52 under 35 U.S.C. 102(b) as anticipated by Marchetti.

Oehu

The Examiner rejects Claims 47-52 as anticipated by U.S. Patent No. 5,645,606 to Oehy et al. (“Oehu”). Applicants assert that Oehu fails to anticipate Claim 47 and its dependent Claims 48-52. Anticipation requires the cited reference to teach each and every element of the claim. See MPEP 2131.01. Oehu does not teach at least one element recited in Claim 47, as discussed below. Accordingly, Oehu fails to anticipate Claim 47 and any of its dependent claims for at least this reason.

On page 4 of the Office Action, the Examiner asserts, among other things, that Oehu discloses an opening capable of receiving an insertion member having a head with a spherical

undersurface seatable in the opening in a plurality of angular positions. The Examiner references, among other things, Figure 2 in Oehu, which Applicants reproduce below for easy reference.



Oehu, Figure 2

In reference to Figure 2 of Oehu, Applicants bring to the Examiner's attention that Oehu fails to teach or suggest at least one structural characteristic of the claimed embodiments of Applicants' invention. A head of an insertion member recited in the pending claims contains a contact surface that falls on a slice of a sphere. When the insertion member is inserted into an opening of a prosthesis, a portion of the contact surface contacts a frustoconical taper section of the opening, and the insertion member locks in one of a plurality of desired angles relative to the opening.

In contrast, as shown in Figure 2 and described, for example, in column 3, lines 10-13 and lines 21-41 in Oehu, the head of the fastening element (14 in Figure 1) in Oehu has a butting surface or a sealing surface (16a in Figure 2) that corresponds in shape to its support surface

(25a in Figure 2). For example, both the support surface (25a) and the sealing surface (16a) shown in Figure 2 in Oehu are spherical. In contrast, as recited in the claims, the section of the opening in contact with the contact surface of the head of the insertion element is frustoconical.

In fact, the Examiner states on page 4 of the Office action that the spherical undersurface of a fastening element disclosed in Oehu is seatable in a concave portion of the opening (25a). With regard to “derivative embodiments,” Oehu discloses, for example, in column 4, lines 8-17, that the support surface can be made conical “for the receipt of a correspondingly conical head part of a fastening element.” In other words, according to the disclosure of Oehu, the contact surface of a head of a fastening element corresponds in shape to the support surface. In the pending claims, on the other hand, the contact surface of the head of the insertion member falls on a slice of a sphere, and the contact portion of the opening is frustoconical.

Accordingly, Oehu fails to teach or suggest at least one structural limitation recited in the pending claims. Namely, Oehu fails to teach or suggest at least one structural limitation recited in Claim 47 and also in new Claim 56, “the contact between the non-frustoconical contact surface of the head and the frustoconical contact taper section ... creates a self locking relationship between the insertion member and the opening to lock the insertion member in one of a plurality of desired angles relative to the opening so that the insertion member and the prosthesis form a rigid physical construct at each of the angles.” Oehu also fails to teach or suggest at least one structural limitation recited in new Claim 57, that “the contact between a portion of the rim and the frustoconical contact taper section locks the insertion member in one of a plurality of desired angles relative to the opening so that the insertion member and the prosthesis form a rigid physical construct at each of the angles.” Accordingly, Oehu fails to anticipate independent Claims 47, 56, 57 and any of their dependent claims for at least this reason.

With regard to new Claims 55, 56 and 58, in addition to the limitations discussed above, Oehu, either in Figure 2 or elsewhere to the publication, fails to teach or suggest one more limitation recited in the claims. Namely, Oehu fails to teach or suggest, in reference to Claim 55, an insertion member having a head which includes a non-frustoconical contact surface that

comprises a slice of a sphere, wherein the slice of the sphere comprises a center point of the sphere. In reference to Claims 56 and 58, Oehu fails to teach or suggest an outer rim falling on a slice of a sphere containing a center point of the sphere. Accordingly, Oehu fails to anticipate Claims 55, 56, 58 and any of their dependent claims for at least this reason.

In view of the foregoing, Applicants assert that Oehu fails to anticipate currently pending claims and request withdrawal of the rejection of Claims 47-52 under 35 U.S.C. 102(b) as anticipated by Oehu.

CONCLUSION

The foregoing is submitted as a full and complete response to the Non-Final Office Action mailed July 18, 2007. No additional fees are believed due, however, the Commissioner is hereby authorized to charge any deficiencies which may be required or credit any overpayment to Deposit Account Number 11-0855.

Applicants assert that the claims are in condition for allowance and respectfully request that the application be passed to issuance. If the Examiner believes that any informalities remain in the case that may be corrected by Examiner's amendment, or that there are any other issues which can be resolved by a telephone interview, a telephone call to the undersigned agent at (404) 815-6102 is respectfully solicited.

Respectfully submitted,

/elena s. polovnikova/

By: Elena S. Polovnikova, Ph.D.
Patent Agent
Reg. No.: 52,130

KILPATRICK STOCKTON LLP
1100 Peachtree Street, Suite 2800
Atlanta, Georgia 30309
(404) 815-6291
Docket No. 10557/266546